Srinivasan Anand

List of Publications by Citations

140 papers	2,079 citations	24 h-index	39 g-index
170 ext. papers	2,362 ext. citations	3.7 avg, IF	4.48 L-index

#	Paper	IF	Citations
140	Negative refraction at infrared wavelengths in a two-dimensional photonic crystal. *Physical Review Letters*, **2004**, 93, 073902	7.4	260
139	Deep level transient spectroscopy of InP quantum dots. *Applied Physics Letters*, **1995**, 67, 3016-3018	3.4	86
138	Temperature tuning of the optical properties of planar photonic crystal microcavities. *Applied Physics Letters*, **2004**, 84, 846-848	3.4	71
137	Surface second-harmonic generation from vertical GaP nanopillars. *Nano Letters*, **2012**, 12, 820-6	11.5	65
136	Photonic crystal optical filter based on contra-directional waveguide coupling. *Applied Physics Letters*, **2003**, 83, 5121-5123	3.4	63
135	Photonic crystals--a step towards integrated circuits for photonics. *ChemPhysChem*, **2004**, 5, 1268-83	3.2	56
134	Electrical characterization of InP/GaInP quantum dots by space charge spectroscopy. *Journal of Applied Physics*, **1998**, 84, 3747-3755	2.5	53
133	Band filling at low optical power density in semiconductor dots. *Applied Physics Letters*, **1995**, 67, 1905-1907	3.4	51
132	Optical study of two-dimensional InP-based photonic crystals by internal light source technique. *IEEE Journal of Quantum Electronics*, **2002**, 38, 786-799	2	48
131	Modal engineering of second-harmonic generation in single GaP nanopillars. *Nano Letters*, **2014**, 14, 5376-81	11.5	46
130	Semiconductor photonic crystals for optoelectronics. *Physica E: Low-Dimensional Systems and Nanostructures*, **2004**, 21, 802-808	3	43
129	Contact mode atomic force microscopy imaging of nanometer-sized particles. *Applied Physics Letters*, **1995**, 66, 3295-3297	3.4	39
128	Compound cavity measurement of transmission and reflection of a tapered single-line photonic-crystal waveguide. *Applied Physics Letters*, **2003**, 82, 2577-2579	3.4	37
127	Planar photonic crystals infiltrated with liquid crystals: optical characterization of molecule orientation. *Optics Letters*, **2006**, 31, 1238-40	3	33
126	GaAs nanopillar arrays with suppressed broadband reflectance and high optical quality for photovoltaic applications. *Optical Materials Express*, **2012**, 2, 1671	2.6	29
125	High optical quality InP-based nanopillars fabricated by a top-down approach. *Nano Letters*, **2011**, 11, 4805-11	11.5	28
124	Design of a Polarization Insensitive Triplexer Using Directional Couplers Based on Submicron Silicon Rib Waveguides. *Journal of Lightwave Technology*, **2009**, 27, 1443-1447	4	28

123	Nanofabrication of two-dimensional photonic crystal mirrors for 1.5 μm short cavity lasers. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2001**, 19, 2775		28
122	Silicon micro-structure and ZnO nanowire hierarchical assortments for light management. *Optical Materials Express*, **2013**, 3, 1039	2.6	26
121	Low-loss InP-based photonic-crystal waveguides etched with Ar/Cl2 chemically assisted ion beam etching. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2003**, 21, 900		26
120	Evaluation of different oxidation methods for silicon for scanning capacitance microscopy. *Materials Science in Semiconductor Processing*, **2001**, 4, 81-84	4.3	26
119	Optical tuning of planar photonic crystals infiltrated with organic molecules. *Journal of the Optical Society of America B: Optical Physics*, **2007**, 24, 2165	1.7	25
118	Electron transport at Au/InP interface with nanoscopic exclusions. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1996**, 14, 2794		24
117	Fabrication of two-dimensional InP-based photonic crystals by chlorine based chemically assisted ion beam etching. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2004**, 22, 707		24
116	Probing carriers in two-dimensional systems with high spatial resolution by scanning spreading resistance microscopy. *Applied Physics Letters*, **2003**, 83, 2184-2186	3.4	24
115	Honeycomb type ZnO nanostructures for sensitive and selective CO detection. *Sensors and Actuators B: Chemical*, **2017**, 252, 764-772	8.5	23
114	Aluminum-Induced photoluminescence red shifts in core-shell GaAs/Al(x)Ga(1-x)As nanowires. *Nano Letters*, **2013**, 13, 3581-8	11.5	23
113	Silicon nanopillar arrays with SiO_2 overlayer for biosensing application. *Optical Materials Express*, **2014**, 4, 1345	2.6	23
112	Electrical characterization of InGaAs/InP quantum wells by scanning capacitance microscopy. *Applied Physics Letters*, **2003**, 83, 4205-4207	3.4	23
111	Liquid crystal infiltration of InP-based planar photonic crystals. *Journal of Applied Physics*, **2006**, 99, 103105	2.5	22
110	Single-mode operation of coupled-cavity lasers based on two-dimensional photonic crystals. *Applied Physics Letters*, **2001**, 79, 4091-4093	3.4	21
109	In-plane resonant cavities with photonic crystal boundaries etched in InP-based heterostructure. *Applied Physics Letters*, **2003**, 83, 1095-1097	3.4	20
108	Fabrication of Periodic Nanostructure Assemblies by Interfacial Energy Driven Colloidal Lithography. *Advanced Functional Materials*, **2014**, 24, 4577-4583	15.6	19
107	Carrier transport through a dry-etched InP-based two-dimensional photonic crystal. *Journal of Applied Physics*, **2007**, 101, 123101	2.5	19
106	Another dimension in device characterization. *IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems*, **2000**, 16, 12-18		19

105	A Polarization-Insensitive 1310/1550-nm Demultiplexer Based on Sandwiched Multimode Interference Waveguides. *IEEE Photonics Technology Letters*, **2007**, 19, 1789-1791	2.2	18
104	Topography dependent doping distribution in selectively regrown InP studied by scanning capacitance microscopy. *Applied Physics Letters*, **1998**, 72, 815-817	3.4	18
103	Characterization of the feature-size dependence in Ar□l2 chemically assisted ion beam etching of InP-based photonic crystal devices. *Journal of Vacuum Science & Technology B*, **2007**, 25, 1		17
102	Polarization-dependent optical properties of planar photonic crystals infiltrated with liquid crystals. *Applied Physics Letters*, **2005**, 87, 121105	3.4	17
101	Dry Etching of Photonic Crystals in InP Based Materials. *Physica Scripta*, **2002**, T101, 106	2.6	17
100	Carrier profiling of Al-doped 4H-SiC by scanning spreading resistance microscopy. *Applied Physics Letters*, **2002**, 81, 3004-3006	3.4	16
99	Minimization of out-of-plane losses in planar photonic crystals by optimizing the vertical waveguide. *Applied Physics Letters*, **2004**, 85, 3998-4000	3.4	15
98	Low energy ion beam etching of InP using methane chemistry. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1998**, 16, 1018		15
97	Transparent TiO2 and ZnO Thin Films on Glass for UV Protection of PV Modules. *Frontiers in Materials*, **2019**, 6,	4	15
96	Experimental quantification of surface optical nonlinearity in GaP nanopillar waveguides. *Optics Express*, **2015**, 23, 756-64	3.3	14
95	Top-Down Fabrication of High Quality III□V Nanostructures by Monolayer Controlled Sculpting and Simultaneous Passivation. *Advanced Functional Materials*, **2013**, 23, 1620-1627	15.6	14
94	Characterization of quantum wells by cross-sectional Kelvin probe force microscopy. *Applied Physics Letters*, **2004**, 85, 5245-5247	3.4	14
93	Nanofabrication of high quality photonic crystals for integrated optics circuits. *Nanotechnology*, **2002**, 13, 341-345	3.4	14
92	Nanostructuring of GaAs with tailored topologies using colloidal lithography and dry etching. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2014**, 32, 021801	1.3	13
91	Junction-type photonic crystal waveguides for notch- and pass-band filtering. *Optics Express*, **2011**, 19, 21074-80	3.3	12
90	Ultracompact directional couplers realized in InP by utilizing feature size dependent etching. *Optics Letters*, **2008**, 33, 1927-9	3	12
89	High external efficiency in a monomode full-photonic-crystal laserunder continuous wave electrical injection. *Applied Physics Letters*, **2004**, 85, 1913-1915	3.4	12
88	Room-temperature polarized spin-photon interface based on a semiconductor nanodisk-in-nanopillar structure driven by few defects. *Nature Communications*, **2018**, 9, 3575	17.4	12

87	Crystallographic orientation dependence of impurity incorporation during epitaxial lateral overgrowth of InP. *Journal of Crystal Growth*, **2002**, 237-239, 1418-1422	1.6	11
86	Scanning capacitance microscopy investigations of SiC structures. *Materials Science in Semiconductor Processing*, **2001**, 4, 209-211	4.3	11
85	Optical properties and fabrication of dielectric metasurfaces based on amorphous silicon nanodisk arrays. *Optics Express*, **2019**, 27, 5353-5367	3.3	11
84	Wafer-scale self-organized InP nanopillars with controlled orientation for photovoltaic devices. *Nanotechnology*, **2015**, 26, 415304	3.4	10
83	Ultrasharp ministop-band edge for subnanometer tuning resolution. *Applied Physics Letters*, **2011**, 98, 081112	3.4	10
82	Determination of spatial resolution in atomic-force-microscopy-based electrical characterization techniques using quantum well structures. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2005**, 23, 61		10
81	Refractive index sensing in the visible/NIR spectrum using silicon nanopillar arrays. *Optics Express*, **2017**, 25, 12171-12181	3.3	9
80	Characterization of GaAs/AlGaAs laser mesas regrown with semi-insulating GaInP by scanning capacitance microscopy. *Applied Physics Letters*, **2002**, 81, 960-962	3.4	9
79	Alloy broadening of the emission barrier of the DX center in aluminum gallium arsenide. *Applied Physics Letters*, **1989**, 54, 145-147	3.4	9
78	Fabrication of Submicrometer InP Pillars by Colloidal Lithography and Dry Etching. *Journal of the Electrochemical Society*, **2010**, 157, H896	3.9	8
77	Highly dispersive photonic crystal-based coupled-cavity structures. *Applied Physics Letters*, **2006**, 88, 201106	3.4	8
76	Photonic crystal waveguides with propagation losses in the 1dB□nm range. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2004**, 22, 3356		8
75	High-bandwidth transmission of an efficient photonic-crystal mode converter. *Optics Letters*, **2004**, 29, 1745-7	3	8
74	Modal behavior of single-line photonic crystal guiding structures on InP substrate. *Photonics and Nanostructures - Fundamentals and Applications*, **2004**, 2, 1-10	2.6	8
73	Thermal conductivity of epitaxially grown InP: experiment and simulation. *CrystEngComm*, **2017**, 19, 1879-1887	3.3	7
72	Generation of substrate-free III-V nanodisks from user-defined multilayer nanopillar arrays for integration on Si. *Nanotechnology*, **2013**, 24, 225301	3.4	7
71	Novel postetch process to realize high quality photonic crystals in InP. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2011**, 29, 031202	1.3	7
70	MOVPE growth of InPGaInAs and GaAsGaInP heterostructures for electronic transport applications. *Journal of Crystal Growth*, **1997**, 170, 127-131	1.6	7

69	Fabry-Pérot cavities based on two-dimensional photonic crystals fabricated in InP membranes. *Journal of Applied Physics*, **2004**, 95, 5928-5930	2.5	7
68	Scanning capacitance microscopy investigations of buried heterostructure laser structures. *Applied Surface Science*, **1999**, 144-145, 137-140	6.7	7
67	Use of low-frequency capacitance in deep level transient spectroscopy measurements to reduce series resistance effects. *Journal of Applied Physics*, **1992**, 72, 3535-3538	2.5	7
66	Embossed Mie resonator arrays composed of compacted TiO nanoparticles for broadband anti-reflection in solar cells. *Scientific Reports*, **2020**, 10, 12527	4.9	7
65	Color generation from self-organized metalo-dielectric nanopillar arrays. *Nanophotonics*, **2019**, 8, 1771-1781	7.9	6
64	Surface second harmonic generation from silicon pillar arrays with strong geometrical dependence. *Optics Letters*, **2015**, 40, 2072-5	3	6
63	Mini-stop bands in single heterojunction photonic crystal waveguides. *AIP Advances*, **2013**, 3, 032136	1.5	6
62	Techniques for Depth Profiling of Dopants in 4H-SiC. *Materials Science Forum*, **2001**, 353-356, 559-562	0.4	6
61	Polytype homogeneity and doping distribution in homoepitaxial 4H SiC grown on nonplanar substrates. *Applied Physics Letters*, **2002**, 80, 1755-1757	3.4	6
60	Optical properties of strained InP quantum dots in Ga0.5In0.5P studied by space-charge techniques. *Physical Review B*, **1996**, 53, R10497-R10500	3.3	6
59	Modal phase matching in nanostructured zinc-blende semiconductors for second-order nonlinear optical interactions. *Physical Review B*, **2017**, 96,	3.3	5
58	Bloch mode excitation in two-dimensional photonic crystals imaged by Fourier optics. *Physical Review B*, **2009**, 79,	3.3	5
57	Scanning spreading resistance microscopy of aluminum implanted 4H-SiC. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2003**, 102, 128-131	3.1	5
56	Large dispersion in photonic crystal waveguide resonator. *Electronics Letters*, **2005**, 41, 414	1.1	5
55	Tuning the optical properties of planar photonic crystals by liquid crystal infiltration **2005**, 5926, 592601		5
54	Doping landscapes in the nanometer range by scanning capacitance microscopy. *Applied Surface Science*, **1999**, 144-145, 525-529	6.7	5
53	Extremely smooth surface morphologies in N2/H2/CH4 based low energy chemically assisted ion beam etching of InP/GaInAsP. *Thin Solid Films*, **1999**, 343-344, 374-377	2.2	5
52	Evidence for the neutral charge state model of the DX center in aluminium gallium arsenide. *Solid State Communications*, **1990**, 76, 609-612	1.6	5

51	Colloidal lithography nanostructured Pd/PdO core-shell sensor for ppb level HS detection. *Nanotechnology*, **2018**, 29, 255502	3.4	4
50	Strong light extraction enhancement using TiO2 nanoparticles-based microcone arrays embossed on III-Nitride light emitting diodes. *Applied Physics Letters*, **2018**, 112, 231101	3.4	4
49	High quality InP nanopyramidal frusta on Si. *CrystEngComm*, **2014**, 16, 4624-4632	3.3	4
48	Investigations of Sol-Gel ZnO Films Nanostructured by Reactive Ion Beam Etching for Broadband Anti-Reflection. *ECS Journal of Solid State Science and Technology*, **2017**, 6, P653-P659	2	4
47	Carrier dynamics in InP nanopillar arrays fabricated by low-damage etching. *Applied Physics Letters*, **2013**, 102, 212106	3.4	4
46	Spatially resolved characterization of InGaAs/GaAs quantum dot structures by scanning spreading resistance microscopy. *Applied Physics Letters*, **2010**, 97, 041106	3.4	4
45	Accumulated sidewall damage in dry etched photonic crystals. *Journal of Vacuum Science & Technology B*, **2009**, 27, 1969		4
44	Low temperature liquid phase epitaxial growth and characterization of AlxGa1⊠As. *Thin Solid Films* , **1988**, 163, 443-446	2.2	4
43	Scanning Capacitance Microscopy for Two-Dimensional Doping Profiling in Si- and InP-Based Device Structures. *Physica Scripta*, **1999**, T79, 163	2.6	4
42	Focused ion beam milling of gallium phosphide nanostructures for photonic applications. *Optical Materials Express*, **2016**, 6, 587	2.6	4
41	Rapid thermal annealing treated spin-on doped antireflective radial junction Si nanopillar solar cell. *Optics Express*, **2017**, 25, A200-A207	3.3	3
40	ZnO nanowire-enabled light funneling effect for antireflection and light convergence applications. *Optics Letters*, **2017**, 42, 45-48	3	3
39	Longitudinal mode selection in constricted photonic crystal guides and electrically injected lasers. *Journal of Lightwave Technology*, **2005**, 23, 1363-1368	4	3
38	Evidence of Bloch wave propagation within photonic crystal waveguides. *Applied Physics B: Lasers and Optics*, **2006**, 82, 9-12	1.9	3
37	Negative refraction in two-dimensional photonic crystals. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 1231-1236	2.6	3
36	Scanning probe microscopy characterisation of masked low energy implanted nanometer structures. *Nuclear Instruments & Methods in Physics Research B*, **2001**, 173, 447-454	1.2	3
35	Photonic crystal waveguides in InP-based heterostructures **2002**,		3
34	Band-filling in InP dots: Single dot spectroscopy and carrier dynamics. *Solid-State Electronics*, **1996**, 40, 357-361	1.7	3

33	Evidence for the alloy broadening of the emission and capture rates of the DX center from the frequency dependence of capacitance of Schottky barriers on AlxGa1−xAs: Si. *Journal of Applied Physics*, **1990**, 67, 1121-1123	2.5	3
32	Electrical conduction through a 2D InP-based photonic crystal **2006**,		2
31	Optical add/drop filters using two-dimensional photonic crystals **2004**, 5279, 286		2
30	Characterization of damage in InP dry etched using nitrogen containing chemistries. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2001**, 19, 1905		2
29	Imaging of ultrafine particles with the atomic force microscope. *Journal of Aerosol Science*, **1996**, 27, S173-S174	4.3	2
28	Sharp line injection luminescence from InP quantum dots buried in GaInP. *Journal of Applied Physics* , **1996**, 80, 1251-1253	2.5	2
27	Charge state of the DX center in aluminum gallium arsenide from photo-Hall measurements. *Physical Review B*, **1993**, 48, 8757-8760	3.3	2
26	The Surfaces of the L. (Carob) Leaflet: Insights from Physics and Chemistry. *Langmuir*, **2021**, 37, 2011-2028	4	2
25	Impact of dry-etching induced damage in InP-based photonic crystals **2008**,		1
24	Heteroepitaxy and Selective Epitaxy for Discrete and Integrated Devices **2006**,		1
23	Photonic Crystal Based Active Optoelectronic Devices **2006**, 329-346		1
22	Structural, electrical, and optical analysis of ion implanted semi-insulating InP. *Journal of Applied Physics*, **2004**, 95, 477-482	2.5	1
21	Low-loss photonic crystal and monolithic InP integration: bands, bends, lasers, and filters **2004**, 5360, 119		1
20	Scanning capacitance microscopy investigations of InGaAs/InP quantum wells. *Thin Solid Films*, **2004** , 459, 67-70	2.2	1
19	Fabrication and characterization of two-dimensional photonic crystal waveguides etched in InP-based heterostructure		1
18	Trimethylamine: Novel source for low damage reactive ion beam etching of InP. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1999**, 17, 2660		1
17	Characterization of buried heterostructure lasers by scanning capacitance microscopy		1
16	Transport and Schottky properties of GaInP capped GaInAs/InP quantum wells with extremely high electron mobilities		1

List of Publications

15	DX Centers in AlGaAs and Pressurised GaAs. *Materials Research Society Symposia Proceedings*, **1993**, 300, 489		1
14	Gallium indium phosphide microstructures with suppressed photoluminescence for applications in nonlinear optics. *Optics Letters*, **2019**, 44, 5117-5120	3	1
13	Top-Down Fabrication of High Quality Gallium Indium Phosphide Nanopillar/disk Array Structures **2019**,		1
12	Ion bombardment induced formation of self-organized wafer-scale GaInP nanopillar assemblies. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2020**, 38, 012801	1.3	1
11	GaInP nanowire arrays for color conversion applications. *Scientific Reports*, **2020**, 10, 22368	4.9	0
10	Enhanced Absorption in InP Nanodisk Arrays on Ultra-Thin-Film Silicon for Solar Cell Applications. *Photonics*, **2022**, 9, 157	2.2	0
9	Design and Modelling of Metal-Oxide Nanodisk Arrays for Structural Colors and UV-Blocking Functions in Solar Cell Glass Covers. *Photonics*, **2022**, 9, 273	2.2	0
8	Effect of hole shapes on the reliability of deeply-etched InP-based photonic crystal devices. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 1670-1673		
7	Evidence of the photonic gap contribution to the guiding mechanism for strongly confined modes in the refractivelike domain. *Optics Letters*, **2006**, 31, 2139-41	3	
6	Applications of wavelength dispersion in 1D and 2D photonic crystals **2005**, 5950, 78		
5	Strain Effects in InP Dots in between Barriers of GaInP. *Materials Research Society Symposia Proceedings*, **1995**, 417, 233		
4	Electrical Characterisation of III□V Buried Heterostructure Lasers by Scanning Capacitance Microscopy **2005**, 413-424		
3	Scanning capacitance microscopy as an in-line evaluation tool for dry etching of semiconductors: a case study with InP **2018**, 523-526		
2	Characterization of GaAs/AlGaAs buried-heterostructure lasers by scanning capacitance microscopy **2018**, 535-538		
1	Polarization dependent structural colors from tilted metalo-dielectric nanopillars. *Materials Research Express*, **2021**, 8, 046202	1.7	